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ISLAM, CHRISTIANITY AND THE ENVIRONMENT

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ISLAM, CHRISTIANITY & THE ENVIRONMENT

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№ 9

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Introduction

In September 2010, the Royal Aal al-Bayt Institute for Islamic Thought in cooperation with the Eugen-Biser Foundation (Germany) held a symposium entitled 'Islam, Christianity and the Environment' at the Baptism Site in Jordan.

The symposium was another event in the series of dialogues driven by the global Muslim-Christian interfaith initiative, *A Common Word* (acommonword.com).

It brought together a small group of Muslim and Christian scholars to discuss how each religion views the environment. This exchange helped both sides achieve a better understanding of each others' perspective, and also led to a strengthening of the response from all faiths to the current environmental crisis. All participants ended the event by endorsing HE Archbishop of Sweden Anders Wejrud's environmental initiative, [The Uppsala Manifesto], which calls for religious communities to rally toward a global climate strategy.

This booklet brings together four papers presented at the symposium.

The Islamic View on Consumption & Material Development in Light of Environmental Pollution

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There is no doubt that Islam values the development of material culture and improvements in technologies that make life easier, healthier and more enjoyable for people. Islam does not romanticize poverty and hardship. The Holy Qur'an, referring to the Ramadan fast says, '*God wants ease for you, He does not want hardship for you.*' (2:185) The persistent Qur'anic reminder to give charity, to shelter the orphan, to feed the poor, all show the high value Islam places on relieving the suffering of others. Further, there are many prophetic teachings about the spiritual reward one receives from removing a hardship from another person. For example, even to remove a fallen branch from a pathway, making it easier for others to walk that path, is an act of charity. Throughout Islamic history, believers with great resources and those of limited means did what they could to ease the journey of

the pilgrim and the traveler by maintaining roadways, and by providing water and shelter along the way. It is not too much to say that to work to ease the hardship experienced by others is an ethical imperative in Islam; indeed, one of the five major maxims of Islamic ethics is "Hardship should be eased" (*al-mashaqqah tajlib bi taysir*).

The principle of easing hardship, however, is not permission for an individual to go to the extreme of unfettered indulgence. Consistent with the Qur'an's emphasis on balance and moderation, there are a number of Qur'anic verses that, on the one hand, encourage the enjoyment of wholesome and beautiful things, while on the other hand, prohibit waste and excess:

يَٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُوا۟ لَا تُحَرِّمُوا۟ طَيِّبَٰتِ مَآ أَحَلَّ ٱللَّهُ
لَكُمْ وَلَا تَعْتَدُوٓا۟ ۚ إِنَّ ٱللَّهَ لَا يُحِبُّ ٱلْمُعْتَدِينَ ٨٧

O you who believe! Do not make unlawful the wholesome things which God has made lawful for you, but commit no excess for God does not love those given to excess. (5:87)

۞ يَٰبَنِىٓ ءَادَمَ خُذُوا۟ زِينَتَكُمْ عِندَ كُلِّ مَسْجِدٍ
وَكُلُوا۟ وَٱشْرَبُوا۟ وَلَا تُسْرِفُوٓا۟ ۚ إِنَّهُۥ لَا يُحِبُّ ٱلْمُسْرِفِينَ ٣١

O Children of Adam! Wear your beautiful apparel at every time and place of prayer and eat and drink. But do not waste (or, "do not be excessive"); verily God does not love the wasteful. (7:31)

كُلُوا۟ مِن طَيِّبَـٰتِ مَا رَزَقْنَـٰكُمْ وَلَا تَطْغَوْا۟ فِيهِ فَيَحِلَّ
عَلَيْكُمْ غَضَبِى ۖ وَمَن يَحْلِلْ عَلَيْهِ غَضَبِى فَقَدْ هَوَىٰ ﴿٨١﴾

Eat of the wholesome things We have provided for your sustenance, but commit no excess therein, lest My condemnation fall upon you; he upon whom My condemnation falls has indeed thrown himself into utter ruin. (20:81)

The Qur'an also recognizes that people take pleasure in experiencing variety, particularly in their food, while again, warning against being wasteful:

۞ وَهُوَ ٱلَّذِىٓ أَنشَأَ جَنَّـٰتٍ مَّعْرُوشَـٰتٍ وَغَيْرَ مَعْرُوشَـٰتٍ
وَٱلنَّخْلَ وَٱلزَّرْعَ مُخْتَلِفًا أُكُلُهُۥ وَٱلزَّيْتُونَ وَٱلرُّمَّانَ
مُتَشَـٰبِهًا وَغَيْرَ مُتَشَـٰبِهٍ ۚ كُلُوا۟ مِن ثَمَرِهِۦٓ إِذَآ أَثْمَرَ وَءَاتُوا۟ حَقَّهُۥ
يَوْمَ حَصَادِهِۦ ۖ وَلَا تُسْرِفُوٓا۟ ۚ إِنَّهُۥ لَا يُحِبُّ ٱلْمُسْرِفِينَ ﴿١٤١﴾

It is He Who has brought into being gardens, the cultivated and the wild, and date-palms, and fields with produce of all kinds, and olives and pomegranates, similar (in kind) and variegated. Eat of their fruit in season, but give (the poor) their due on harvest day. And do not waste, for God does not love the wasteful. (6:141)

The ethics of consumption in Islam, then, rests on three pillars. First, what is consumed must be lawful and wholesome. Second, one must give the poor their share in one's wealth; money and good remain "impure" until what is owed upon them as zakat is paid. Finally, one is not permitted to be wasteful with one's goods. Thus, even if the goods one consumes are lawful, and even if one has given the poor their share of one's wealth, it is still not permissible to be wasteful.

Now, the challenge here is to judge what is "wasteful" or "excessive" as these are general and relative terms (we also note that there might be some differences in the implications of the two words, both used as translations of *tasrif*). "Wasteful" consumption most obviously would include the acquisition of too much of something, so that some of it goes bad. Cooking too much for one meal is wasteful when leftover food has to be thrown out. It is also wasteful to use a product like food, of which many of the poor are deprived, for a non-nutritive purpose—the ultimate grotesque example in this re-

spect is the common Hollywood movie trope, the "food fight." But is it wasteful or excessive to spend a great deal more—perhaps ten times more (or even two times more)—for a luxury or designer product when the cheaper product serves the same function? If excess is a relative term, to whom should one's consumption be compared in order to determine what is excessive? The modern consumer economy offers an endless variety of objects for consumption. At what point does the continuing acquisition of different kinds of objects for the sake of change and variety become excessive?

It is unlikely that we will find answers to such questions by parsing out the various significations of the Qur'anic term *tasrif*. Rather, we have to look deeper into Islam's spiritual teachings on the matter—teachings which have a timeless quality—while at the same time, looking further into Islam's ethical teachings, which must take into consideration the particular context in which one lives—the real world challenges of one's time and place—to determine the best course of action.

In its spiritual teachings, Islam recognizes that desire, if not controlled by intellect and conscience, can be insatiable. The Prophet Muhammad said, "If the son of Adam had a mountain of gold, he would wish for another."[1] If we are consumed

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1 A paraphrase of the hadith reported by Anas ibn Malik in "*Kitab al-Riqah*," in *Sahih al-Bukhari*.

with desire for things, we are seeking happiness in a mirage. It is in our own spiritual benefit, then, to realize that things of this world are not ends in themselves, and we should occupy ourselves, to the extent possible, with acts of kindness and compassion—for it is in service to others that we find the face of God; as the Qur'an describes the righteous saying, '*We feed you seeking the face of God; we wish from you no reward or thanks.*' (76:9)

One of the Prophet Muhammad's teachings that is particularly compelling from a spiritual and psychological perspective in this respect is "When you see one who has more, look to one who has less."[2] Here, we have a double-movement, beginning with the elicitation of desire and envy provoked by seeing someone who has a thing which one lacks oneself. Feeling this rising desire within himself—an initial state for which he is not necessarily responsible—the believer must take the deliberate and spiritually sound action of moving his gaze from what he has not, to one who has even less then him. Now, envy and desire for more things should subside, leading to greater satisfaction with one's state. Beyond satisfaction, compassion for one who has less should also rise. Compassion can lead further to action to help the person who is relatively deprived; the movement from feeling to action is often

2 A paraphrase of the hadith reported by Abu Hurayra in "*Kitab al-zuhd wa'l-raqa'iq,*" in *Sahih Muslim.*

dependent upon external factors, such as if one's family, community and moral leaders provides encouragement and the means to engage in such action.

Here we come to the conclusion then that the spiritually developed Muslim might choose to deny himself certain goods which are lawful to consume out of consideration for the elevation of his soul and out of compassion for others. Such a person might find himself judged to be ascetic or even "extreme" in the moderation of his consumption by others if they, in contrast, indulge in their consumer desires with little consideration for the effect this has on their own souls and on the bodies and souls of those who have little. What is important to realize is that the Muslim who restrains his consumption in this way does not do so because he romanticizes poverty or seeks hardship; rather he seeks closeness to God by giving of himself and his goods to others in need.

And here we come to the unique challenge of modern times: that is, that our consumption of goods is not like consumption in earlier times—rather, it is more fraught with moral peril due to the nature of some of the goods and products that have been developed in modernity, and the methods by which they have been produced.

At times it seems like the poor of the world have, since the rise of the modern period, been subject to an ongoing experiment, without their consent, to see how their labor and land could best be exploited to improve the lifestyles of wealthy in-

dividuals across the world, and, more substantially, to further the economic interests of the politically dominant nations.

Greed, selfishness and avarice, of course, are not distinctly modern characteristics. These are human failings to which all people are subject—the ancients and the moderns, the illiterate and the most educated.

Modernity, however, is characterized, among other things, by the rapid development of new technologies and the concomitant reorganization of social structures and the intensive exploitation of the environment to optimize the use and impact of such technologies. New technologies, materials and methods of production are introduced with dizzying speed, and, with the coercive power of modern nation states, are sometimes imposed on whole populations in a very short period.

There are many reasons why new technologies and systems are embraced before the risks of their use can be reasonably assessed. Sometimes, of course, these changes are forced upon ordinary people despite their opposition. In other cases, as with the rapid adoption of genetically modified crops, or in the conversion of handmade products to factory-made, people see a real chance to improve their lives in embracing such changes.

And very often, there are significant improvements: the cash earned from export crops is used to advance the development of a community, the purchase of labor-saving de-

vices and new technologies improves the health and lifespan of workers, and, most importantly, frees children from the burden of laboring to contribute to the productive output of families, making it possible for them to be educated (when schools are available).

There is no doubt that plastic buckets, food containers, and medical supplies have significantly contributed to improved health and hygiene across the world. We have only lately realized, however, that many of these products which in themselves are beneficial result from a manufacturing process that generates noxious wastes. Further, when many of these products are broken or replaced by more advanced models, they become pollution because they do not degrade. Before the development of synthetic products, every man-made object would (or could), eventually degrade back into the earth. We can visit ancient archeological sites that have been inhabited by humans for hundreds, or even thousands of years, and have to dig to find traces of what these people have left behind. But the evidence of our visits to these sites is clearly evident in the plastic water bottles, Styrofoam cups and other non-degradable materials we have left behind.

What is saddest and most sinful about all of this is that millions of poor people across the world experience few or none of the benefits of modern industry and agricultural methods, but they suffer the most directly from their toxic outflows. I remember when I was passing through the countryside in

Java, through very small villages along waterways. The inhabitants evidently owned very few of the modern products that can improve health and well-being—they did not have well-roofed and screened homes to keep out the rain and mosquitoes; they did not have a medical clinic or sturdy footwear. At the same time, these people had been robbed of any kind of pristine or bucolic rural environment that offers its own salutary benefits: their stream, for example, was clogged with plastic garbage and poisoned by industrial chemicals produced by factories far upstream around Jakarta.

Consumption and material progress in the modern age, therefore, poses, just like warfare and terrorism, challenges that are qualitatively different than those posed in pre-modernity. Terrorism, for example, is not new. It is well-known that the term "assassin" has its origins with the Isma`ili extremists who were dedicated to overthrowing the Abbasid caliphate. The assassins, so named because it was thought that they must have performed their violent acts in an altered state after consuming hashish, would sneak into crowded public mosques during Friday services to kill officials with their daggers. Of course, as soon as they attacked, they themselves were killed by guards or the crowd, so these were essentially suicide attacks. However, the damage to human life was always limited, because a single person can kill a limited number of people with a dagger. Contrast this with our challenge in the modern age, where a single person can kill hundreds of people with

an explosive vest, or even thousands by releasing a poisonous vapor into a crowded public place. More restrictive security measures can certainly be justified when the harm that would be caused by such an attack is understood. Similarly, no premodern human product or form of manufacturing could ever have caused anything near the damage to people, water, fish, birds and the rest of the environment for generations caused by the Chernobyl nuclear disaster of 1986. If more nuclear power plants are currently needed to meet our power consumption needs, perhaps there is an ethical imperative to reduce our power consumption, even if we can afford to pay for it as individuals.

To understand the magnitude of the challenge we face compared to earlier peoples, let us consider the consequences of one of the most brutal military conquests in world history—the Mongols in the 13th and 14th centuries. Consider the fact that their massive slaughter of humans and animals likely contributed to the spreading of the plague across Eurasia at a historical scale; nevertheless, the impact of that devastation was felt only a few generations. Compare this with the environmental impact of depleted uranium, used in shells in a number of wars during our lifetime. Countless innocent souls living a hundred years from now, or more—people who had nothing to do with such wars—will suffer from cancers, infertility and various genetic defects because of the use of such weapons.

What, then, is the suitable ethical and spiritual position for a Muslim vis-à-vis material development and consumption (not to mention the products of warfare), given this new, sobering reality for long-term widespread harm that was not faced by our classical scholars?

Of course, it is asking too much of individuals to assess all the possible harms that could entail from their consumption. It is not too much, however, to ask religious scholars to work with scientists and others, as a collective obligation, to assess such risks before issuing fatwas or making other normative statements about development and consumption. Such statements are deficient if they do not include a consideration of the environmental damage that results from manufacturing products, as well as the harm caused by the disposal of such objects when they are no longer needed or wanted. Further, at a time when our individual consumption can have such a disproportionate impact on the environment, on public health, and on future generations, we certainly need to give more weight to the public interest in the short and long-term than we have previously.

For example, we need to consider the possibility that manufacturers should be required to bear the true costs of environmental remediation for the damage created by the production and disposal of their goods. Of course, manufacturers would pass on such costs to the consumer, raising the price of their goods. Some experts might thereby be reluctant

to endorse such a regulation out of concern for the struggling poor in their countries who might not be able to afford the more expensive products. However, if goods produced in a harmful manner were not so cheap, then goods produced in a less harmful manner might be purchased by more people, with the result that greater sales of these goods could bring their costs down further, thus lessening the impact on the consumer. Meanwhile, with less harm to the environment, consumers and their communities will be healthier in many ways, and will thereby save on healthcare and will have more days when they are healthy and can work. As this relates to the consumption of ordinary goods, one could consider it more wasteful, then, to pay less for a cheaper product that was created through a process which unleashed harmful pollution into the environment, than to spend more for a similar product that was created with less negative impact on the environment.

Of course, such assessments will only be helpful if the information collected can be disseminated freely through public education, and can form the basis for public policies and regulations that prevent such harm and further the public good.

In the end, we cannot stress enough the importance of ensuring that the spiritual and ethical values of a community determine the pace and form of so-called "development" in the global corporate culture in which we live. Here, a lesson from

the history of the colonization of the Americas by Europeans is instructive. In the words of one historian, "The advantage of a metal ax over a stone ax is too obvious to require much discussion… [however]…when the Indians discovered the productive superiority of the white men's axes, they wanted them not in order to produce more in the same amount of time, but to produce as much in a period ten times shorter."[3] Now, the Europeans considered the Indians choice to use the saved hours in cultural community activities—sitting around chatting with each other or making music, for example, to be laziness—and many Indians were enslaved alongside with Africans so they would be more "productive" in the eyes of the Europeans.

Let us look at a more recent example from a Muslim village along the coast of Thailand, as described in a 2001 New York Times article:

> If the Thai government gets its way, a new pipeline will soon appear on the white sand beach here, carrying natural gas from beneath the South China Sea across Thailand to Malaysia. It will bring energy for Southeast Asia and thousands of new industrial jobs for southern Thailand.

3 Pierre Clastres, *Society Against the State,* trans. by Robert Hurley (New York: Urizen Books, 1977), 165-166.

That is what Ariya Maday is afraid of. "We want our way of life," said Ms. Ariya, one of roughly 5,500 Muslim villagers who live in the Taling Chan district. "We don't want to change and work in industry."...

"I see it as an imperative," said Leon Codron, chief executive of Singapore Petroleum. "Globalization has to mean a better life for everyone. That can only come if there's energy available."

But to villagers like Ms. Ariya, with little hope for middle-class status, the globalization process mostly seems to benefit city people at their expense....

Public opposition to projects like the Thai-Malay pipeline was not even taken into account until 1997, when Thailand adopted a new constitution that required consultation with local people before undertaking major infrastructure projects. PTT responded with a public relations campaign intended to allay villagers' fears and promote the jobs and shopping malls it said the project would bring. The company doled out rice and sugar, clocks for the mosques and money for schools, villagers say....

The villagers—who make their living fishing, farming or raising songbirds—were unmoved. In addition to the risk of gas leaks or explosions, they worried about how

impurities like toxic mercury extracted by the gas separation plant might affect their air and water.

> A precedent was not encouraging. Twenty years ago, the company built a separation plant where pipelines landed on the coast just south of Bangkok. With a ready supply of energy and gas by-products nearby, the sleepy fishing community became a polluted snarl of petrochemical plants, steel mills and auto factories.
>
> "I thought God had made nature the same everywhere," said Arisa Hmanhla, one of many villagers who ventured north to see the effects of this development for themselves. "But the water was dirty, the soil was dirty, and I saw oil in the seawater."[4]

Here we see that a small group of citizens in Thailand, because of an increase in the power of the citizen's voice in shaping government policies, had at least some hope of choosing how development and consumption would impact their lives, and that they chose a life they considered more in harmony with God's plan for creation. It is my understanding that, unfortunately, corruption eventually poisoned the political process and the will of these villagers was ignored. And it is true

4 Wayne Arnold, "A Gas Pipeline to World Outside; Talk of Modernization and Jobs Unsettles Thai Villagers," The New York Times, Section C; Column 2; Business/Financial Desk; Pg. 1 (October 26, 2001)

that across much of the Muslim world, religious voices have few means to influence public policy and the political disempowerment of many Muslim communities means that their ethical choices are frustrated in many places. Despite this, I truly believe that the spiritual and ethical potential of Muslim people to respond to the environmental challenge is great. It is up to the rest of us to help lift up their voices so they might be heard as loudly as the global corporate marketers of unrestrained consumption.

The Protection of Animals in Islam

Dr. Murad Wilfried Hofmann
Author & Muslim Intellectual

Some people may believe that religion—being for human beings—has no room for animals. Such a view would be wrong, at any rate for Islam, given that the Qur'an treats all animals as members of particular nations, just like us:

وَمَا مِن دَآبَّةٖ فِي ٱلۡأَرۡضِ وَلَا طَٰٓئِرٖ يَطِيرُ بِجَنَاحَيۡهِ إِلَّآ أُمَمٌ أَمۡثَالُكُمۚ
مَّا فَرَّطۡنَا فِي ٱلۡكِتَٰبِ مِن شَيۡءٖۚ ثُمَّ إِلَىٰ رَبِّهِمۡ يُحۡشَرُونَ ٣٨

No creature is there crawling on the earth, no bird flying with its wings, but they are nations like unto yourselves. We have neglected nothing in the Book; then to their Lord they shall be mustered. (6:38)

In line with that view the Qur'an deals with bees, calfs[1], pigs[2], and animal products like milk[3] and honey as well. There is even a Qur'anic surah called 'The Bee' teaching

1 2:51, 54, 92 f.; 4:153; 7:148, 152; 11:69; 20:88; 51:26.
2 2:173; 5:3, 60; 6:119, 135; 16:115.
3 16:66; 47:15.

Muslims 1,400 years ago that honey is a medicament:

ثُمَّ كُلِى مِن كُلِّ ٱلثَّمَرَٰتِ فَٱسْلُكِى سُبُلَ رَبِّكِ ذُلُلًا ۚ
يَخْرُجُ مِنۢ بُطُونِهَا شَرَابٌ مُّخْتَلِفٌ أَلْوَٰنُهُۥ فِيهِ شِفَآءٌ
لِّلنَّاسِ ۗ إِنَّ فِى ذَٰلِكَ لَأَيَةً لِّقَوْمٍ يَتَفَكَّرُونَ ﴿٦٩﴾

'Then eat of all manner of fruit, and follow the ways of your Lord easy to go upon.' Then comes there forth out of their bellies a drink of diverse hues wherein is healing for men. Surely in that is a sign for a people who reflect. (16:69)

In Paradise, so the Qur'an says, transparent honey will flow as well as milk whose taste is not going to change:

مَّثَلُ ٱلْجَنَّةِ ٱلَّتِى وُعِدَ ٱلْمُتَّقُونَ ۖ فِيهَآ أَنْهَٰرٌ مِّن مَّآءٍ غَيْرِ
ءَاسِنٍ وَأَنْهَٰرٌ مِّن لَّبَنٍ لَّمْ يَتَغَيَّرْ طَعْمُهُۥ وَأَنْهَٰرٌ مِّنْ
خَمْرٍ لَّذَّةٍ لِّلشَّٰرِبِينَ وَأَنْهَٰرٌ مِّنْ عَسَلٍ مُّصَفًّى ۖ وَلَهُمْ
فِيهَا مِن كُلِّ ٱلثَّمَرَٰتِ وَمَغْفِرَةٌ مِّن رَّبِّهِمْ ۖ كَمَنْ هُوَ
خَٰلِدٌ فِى ٱلنَّارِ وَسُقُوا۟ مَآءً حَمِيمًا فَقَطَّعَ أَمْعَآءَهُمْ ﴿١٥﴾

This is the similitude of Paradise which the godfearing have been promised: therein are rivers of water unstaling, rivers of milk unchanging in flavour, and rivers of wine—a delight to the drinkers, rivers, too, of honey purified; and therein for them is every fruit, and forgiveness from their Lord—Are they as he who dwells forever in the Fire, such as are given to drink boiling water, that tears their bowels asunder? (47:15)

Of birds the Holy Script says that they know their prayers of adoration (24:41), assuring that God takes care of all animals, regardless of their usefulness to man:

وَكَأَيِّن مِّن دَآبَّةٍ لَّا تَحۡمِلُ رِزۡقَهَا ٱللَّهُ يَرۡزُقُهَا وَإِيَّاكُمۡۚ وَهُوَ ٱلسَّمِيعُ ٱلۡعَلِيمُ ٦٠

How many a beast that bears not its own provision, but God provides for it and you! He is the All-hearer, the All-knower. (29:60)

A strong message in favor of animal protection is contained in the Biblical story of Salih and the wantonly crippled camel: God destroys a people in response to its animal abuse![4]

4 7:73; 11:64–66; 26:155–158; 91:13 f.

II.

In contrast to the Christian sources the Qur'an does not allow man "to subdue" the earth. Rather, according to surah an-Nur, man on earth is God`s responsible vice-regent only:

وَعَدَ ٱللَّهُ ٱلَّذِينَ ءَامَنُوا۟ مِنكُمْ وَعَمِلُوا۟ ٱلصَّٰلِحَٰتِ لَيَسْتَخْلِفَنَّهُمْ فِى ٱلْأَرْضِ
كَمَا ٱسْتَخْلَفَ ٱلَّذِينَ مِن قَبْلِهِمْ وَلَيُمَكِّنَنَّ لَهُمْ دِينَهُمُ ٱلَّذِى
ٱرْتَضَىٰ لَهُمْ وَلَيُبَدِّلَنَّهُم مِّنۢ بَعْدِ خَوْفِهِمْ أَمْنًا ۚ يَعْبُدُونَنِى لَا يُشْرِكُونَ
بِى شَيْـًٔا ۚ وَمَن كَفَرَ بَعْدَ ذَٰلِكَ فَأُو۟لَٰٓئِكَ هُمُ ٱلْفَٰسِقُونَ ﴿٥٥﴾

God has promised those of you who believe and do righteous deeds that He will surely make you successors in the land, even as He made those who were before them successors, and that He will surely establish their religion for them that He has approved for them, and will give them in exchange, after their fear, security: 'They shall serve Me, not associating with Me anything.' Whoso disbelieves after that, those—they are the ungodly. (24:55)

In accordance with this limited status the Qur'an permits horse-back riding as a divine concession (40:79) and allows profiting from animal milk (40:79; 43:12).

III.

Food in Paradise is vegetarian[5], and so am I. Alas, the same cannot be said for the Islamic world. True, the Qur'an mainly praises vegetarian food like water, milk, corn, dates, grapes, olives, and pomegranates.[6] The countervailing focus on meat is largely due to the fact that Prophet Ibrahim was allowed to sacrifice a ram in place of Ismael, his first born son (37:102–107). In commemoration of this, pilgrims in Makkah each year slaughter millions of roosters, sheep, and even camels as foreseen in surah al-Hajj (5:2; 22:33–37). Nowadays most of the meat thus gained is immediately frozen and shipped by air to needy countries.

Outside the hajj-season Islam also allows the hunting of certain animals (5:1, 4, 94 f.) Generally forbidden, above all, is of course the consumption of pork. As a rule, Muslims are allowed to eat what Christians eat (5:5). But this does not refer to what is expressly forbidden, like pork. There is only one case for the consumption of pork by Muslims: if otherwise they would starve or are forced at gunpoint to eat it.[7]

IV.

So far I quoted from the Qur'an only because it is easier

5 With one single exception.

6 6:99, 141; 13:4; 16:10 f.; 23:19; 80:24 ff.

7 2:173; 5:3; 6:145; 16:115.

to access for our Christian friends than the Sunnah of the Prophet Muhammad (peace and blessings be upon him). But my short presentation would be incomplete without giving credit to his love of cats.

As a consequence, cats are much more visible than dogs in the Muslim world. And for reasons of cleanliness, only cats, never dogs, are allowed inside Muslim living quarters.

Basic Demands Established in the Christian Bible to Assume Responsibility for the World

Dr. Martin Arneth

ABSTRACT

In the focus of this presentation I want to investigate the biblical notions of man as an image of God being the background of a theology of responsibility for the world in biblical times.

In the tradition of the Christian Bible, the responsibility for the world is from the beginning strictly related to the monotheism of the Old Testament. Of this we read in the creation story Gn 1:1–2:4. The author describes the origin of the world as connected with God, but also differed from him. He combines monotheism directly with an anthropology that finds its concise expression in the idea of man as an image of God. This concept is an innovation that is clearly distinguished from other similar ideas of the ancient Near East. There, not the man but only the king is the image of God. However, the Old Testament's anthropology is more

than an idea, because the concept of man as an image of God is immediately referred to the conflicts in the world. As an universal example of this, the author tells the story of the flood. The concept of man as an image of God is now connected to universal rules, the so-called Noachidic laws, and can be considered as a religious starting point for the idea of the specific dignity of man."

TRANSCRIPT

Your Royal Highness, ladies and gentlemen. It is a great honor for me to speak here today at the conference. Before I begin my presentation, I would like to make some short remarks. I am a historian of Old Testament in its ancient Near Eastern contexts. So I am not qualified to make statements about the current situation based on my own research.

Therefore I will limit my presentation to an important theological idea in the Christian Bible, the idea of man as an image of God. This idea is a crucial and fundamental insight of the Old Testament, which is also of enormous importance for Christianity. It is also a significant starting point for the religious discourse on human rights in modern times from the beginning of the Renaissance and the European enlightenment. And as such, it is important for the debate over responsibility for the world.

The development of the biblical concept of responsibility for the world—and, above all, the idea of "the world"—start-

ed in the 8th century B.C.E. These were the times when the Assyrians created their empire. Previously in the early first millennium B.C.E. there were many small tribes and nations in the Ancient Orient. They lived together, they merchandised among each other, sometimes they waged war against each other—and every nation had its own god, the god of each nation: Israel, the Edomites, the Moabites, the Arameans and so on. But with the Assyrians came the Empire—and with the Empire, the idea of the world.

During this time, the prophet Amos heard the voice of God[1]. And God spoke to him in a vision and he sent him out to announce to his own people the end.

"This is what my Lord God showed me: A basket of summer fruit. And he asked, 'what do you see, Amos?' I replied, 'a basket of summer fruit.' Then the Lord said to me, 'the summary hour—and that means in this word-play-vision (summer fruit—summary hour): the end—the summary hour is at hand for my people Israel. I shall pardon them no more." (Amos 8:1-2)

The end for Gods own people? What about the religious traditions of Israel? The prophet believed that the religious traditions of Israel weren't of use any longer. In another context Amos mentioned the superior and privileged status of Israel basing in the exodus from Egypt:

1 See for the following J. Jeremias, Der Prophet Amos, Göttingen 1995; S.M. Paul, Amos, Minneapolis 1991.

Hear this word that the Lord has spoken concerning you, O children of Israel, concerning the entire family which I brought up from the land of Egypt.

You alone I have chosen from all the families of the earth. That is why I shall call you to account for all your iniquieties. (Amos 3:1-2)

The religious traditions, the privileged status of Israel aren't of any further use, because Israel has violated righteousness and justice. The prophet complains:

"They—the Israelites—turn justice into wormwood and hurl righteousness to the ground" (Amos 5,7).

No longer the exodus from Egypt, but righteousness and justice alone are responsible for the relationship between God and his people, this is the privilege for God's own people. And what does this mean for the other peoples? We can read the answer in Amos 9:7:

Are you not like the Ethiopians to me, O Israelites? – declares the Lord.

Of course, I brought Israel up from the land of Egypt.

But so, too, the Philistines from Caphtor and the Arameans from Kir.

In this rhetorical and polemical question the Prophet contradicts the popular belief that Israel as a nation occupies a privileged place before God—precisely because of its exodus from Egypt. God did the same to the distant people—the Ethiopians, that means in the ancient Near East the Sudan—and the near people—the Philistines who came from Crete and the Arameans. The Lord, Jahwe—the God of Israel himself absolutely denies and rejects this assumption of a superior status. In the eyes of the Prophet, God is no longer a God of nations, but the Lord of the world.

Let me summarize briefly the importance of the prophecy of Amos in the Old Testament. Two ideas are in the focus of religious experience. And on the basis of religious experience these ideas increasingly define the life and patterns of thought. First, there is the idea that the relationship between God and his devotees is constituted essentially by righteousness and justice. And the unity of the world—not only the unity of a single nation—is guaranteed by righteousness and justice what the God of Israel absolutely demands. Of course: the ethics of ancient Israel is not the categorical imperative of Immanuel Kant or the ethics of virtue of Aristotle—not even the Decalogue, the Ten Commandments. The ethics of Israel is largely the traditional ethics of the time—a lot of the biblical laws and legal or ethical traditions can be found elsewhere in the ancient Near East like in Mesopotamia or Egypt. But the urgency and intensity that made righteousness and jus-

tice the measure of God's relation to his people is remarkable.

So we can turn to the important texts that comprise the idea that man is an image of God. One of the most eminent texts of the Old Testament at all is the Primeval History of the Genesis, the first book of Moses, the history of mankind, before the history of Israel and its neighbours begins.

The Primeval History[2] presents the famous description of the creation of the world in seven days by the Word of God including—apart from many other aspects—a fundamental explanation, an aitiology of the conditio humana. According to the author of the story the world is created very well from the beginning:

I quote Gen 1:31: "God looked at everything that he made and found it very pleasing".

On the one hand, the world is created very well from the beginning but nevertheless leads to disaster. The story of the flood, the big catastrophe in primeval times reports of this. We find it in Gen 6-9:

Gen 8:23: "All existence on earth was blotted out—man, cattle, creeping things, and birds of the sky; they were blotted out from the earth." Of course with one exception: "Only Noah was left, and those that were with him in the ark."

How could this disaster happen? Many peoples of the an-

2 Compare for the following M. Arneth, Durch Adams Fall ist ganz verderbt. Studien zur Entstehung der alttestamentlichen Urgeschichte, Göttingen 2007, with further literature.

cient Near East like the Babylonians and the Assyrians knew the story of the flood. We find the story in the legendary Plate 11 of the Gilgamesh-Epic or in the late Babylonian Atramhasis-Epic dating back to the 2nd millennium BCE But their explanations for the flood were very different. They spoke of fate or caprice of their gods. They tried to give the disaster a reasonable sense like the regulation of overpopulation and so on.

In the Old Testament they run a different path. And that diverse interpretation of the story of the flood is linked together with a different anthropology. But the anthropology of the Primeval History in the Bible is complex. I won't bore you with the current debates on the literary problems of the Genesis or the Pentateuch, the five books of Moses, in Germany and elsewhere. I'll only make some brief comments.

According to most of the scholars, the complex anthropology is the result of an intense literary process. Traditionally[3] it is assumed that there are two sources (a priestly code, P, and an older Yahwistic source J) in the Primeval History, that have been connected redactionally. To the priestly code belongs the first creation story in Gen 1:1-2:4a, to the older Yahwist (or: nP = non P) the second story of creation in Gen

3 The modern history of biblical research begins with Jean Astruc, Conjectures sur les mémoires originaux dont il paroit que Moyse s'est servi pour composer le livre de la Genèse, 1753. The most important contribution is still: Julius Wellhausen, Prolegomena zur Geschichte Israels, Berlin 61927; a translation into English is available.

2:4b-3:24, the story of paradise and fall. The story of the flood Gen 6-9 is a combination of both layers.

However, I want to focus my lecture on the literary basis of the primeval History, especially the creation story in Genesis 1, the so-called P-Code. And this includes very important statements to anthropology, which have been the starting point of Christian anthropology for many centuries. I'm speaking of the doctrine of the man as an image of God. I quote:

> *"Then God said, 'I (or we?) will make man in my image, after my likeness; let him subject the fish of the sea and the birds of the sky, the cattle of every kind, and all the creeping things of the earth, whatever their kind'. And God was pleased with what he saw.*
>
> *And God created man in his image; in the divine image created him, male and female created he them.*
>
> *And God blessed them, saying to them, 'Be fertile and increase, fill the earth and subdue it; subject the fishes of the sea, the birds of the sky, and all the living things that move on earth.'*
>
> *And God further said, 'See, I give you every seed-bearing plant on earth and every tree in which is the see-bearing fruit of the tree;*

And to all the animals on land, all the birds of the sky, and all the living creatures that crawl on earth (I give) all the green plants as their food.' And it was so." Gen 1:26-29.

There the text raises many problems: I will just mention a few. The main problem is: what does the "image of God" mean exactly? If we look at the Christian tradition beginning with the Greek translation of the Old Testament, the so-called Septuagint, there are many interpretations, especially because there are used two different words for image—in Hebrew selem and demut, in Greek eikon and omoiosis, in Latin imago and similitudo. But the terminology changes in the Old Testament in all three places where the idea "the man is the image of God" appears—only in the primeval History (Gen 1:26-27; Gen 5:1-3; Gen 9:1-7). But: If we look to the ancient Near East traditions, contemporaneous to these texts of the OT, we see that there is no problem at this point: the idea of man as an image of God is not unusual at this time.

Much more interesting is who is referred to in the ancient Near East as the image of God. In Egypt, Babylonia and Assyria, only the king is considered to be the image of God. "Image" means "statue", a plastic picture. And this statue represents power and majesty. If the king is the image of God, then he consequently represents the power and majesty of God over his people. The issue is not whether the king looks like

a God. A statue of a king looks in the ancient Near East not even necessarily like the current king. Important are only the royal attributes.

So if the king himself is "image of God", then his special position and function are emphasized. This becomes even clearer when we behold Mesopotamian creation traditions of the first millennium BCE We have notice of one text in which the human race is created in two steps. First, the man as such is created, but the king in a second, very special act of creation. Thus, the special position of the king is emphasized already at the very beginning of the world.

In the Bible things are different. The creation of the king is not mentioned in the story of creation in the Genesis. All human beings are the image of God, men and women. All people have the same function, namely to represent God in his creation. Since all have the same mission and purpose, human beings are not allowed to dominate each other. Only over animals they are meant to rule—like a shepherd over his flock. But—an important restriction—they are not allowed to eat them. This is a very optimistic state which the Bible describes on the first page.

But the Bible, the Holy Scripture is not unrealistic. We know the experience the Prophet Amos had: only on the basis of righteousness and justice is God the Lord of the world over all people. And that has consequences for the interpretation of the primal catastrophe, the old traditional flood story

we know from Mesopotamia. I have already pointed out these traditions and I quote again Amos 8:1-2:

"Then the Lord said to me, 'the summary hour—and that means in this word-play-vision (summer fruit—summary hour): the end—the summary hour is at hand for my people Israel. I shall pardon them no more." (Amos 8:1-2)"—this said the prophet Amos.

And accordingly it is mentioned at the beginning of the flood narrative:

I quote Gen 6:13: "Then God said to Noah, 'I have decided to put an end to all flesh, for the earth is filled with lawlessness because of them."

Not fate or caprice of the gods is the cause of the flood, but the crime on earth. The man of the ancient world is always thinking from the retrospect. If all living beings have to die in the flood—except the fishes in the water, they cannot die by the flood—they altogether must have committed crimes. Only the righteous Noah and his family are saved due to a covenant with God.

The flood disaster—the disaster caused by men—of course, has implications for the construction of the creation—and thus for anthropology. The idea of man as the image of God is mentioned again at the end of the flood pericope. Manhood has not lost its likeness to God through the sin and the punishment by flood. But the idea of man as an image of God is expanded now. I'll read a short passage from the end of the story

of the flood which is known as the Noachidic commandments:

> *Gen 9:1-7: "1 And God blessed Noah and his sons, and said to them, 'Be fertile and increase and fill the earth. 2 Dread fear of you shall possess all the animals of the earth and all the birds of the sky—everything with which the ground is astir—and all the fishes of the sea: they are placed in your hand. 3 Every creature that is alive shall be yours to eat; I give them all to you as I did with the grasses of the field. 4 Only flesh with its lifeblood still in it shall you not eat. 5 So, too, will I require an accounting for your own lifeblood: I will ask it of every beast; and of man in regard to his fellow man will I ask an accounting for human life. 6 He who sheds the blood of man, by man shall his blood be shed; for in the image of God was man created."*

Some things we know from the account of creation. The commandment "Be fertile and increase and fill the earth" is not new. But the dominium animalium—the dominium over the animals—has changed. Now the man is permitted to eat animals; note: not from the beginning of creation—but only as a result of sin. And the divine likeness of man is placed in a new context:

> *"He who sheds the blood of man, by man shall his blood be shed; for in the image of God was man cre-*

ated." Gen 9:6.

He is no longer only the representative of God within creation, which is the original meaning of the idea of man as an image of God. "Image of God" is now a kind of taboo, a picture of the unique dignity of man. And the unique dignity of man must be protected. Therefore, life of man is to be given special protection—paradoxically, by the death penalty. This is a contradiction, I know—but the threat of death penalty has the function to prevent the murder of the people.

This is the biblical view of man from the beginning of Genesis. Let me summarize and add some reflections.

Perhaps in the Old Testament the world itself is not (as) holy (as the temple in Jerusalem). Of course there are very expressive texts, that allow us to imagine the religious experience of nature and the awe of creation like in Psalm 8—in the translation of KJV:

> *"1 O LORD our Lord, how excellent is thy name in all the earth! who hast set thy glory above the heavens. 2 Out of the mouth of babes and sucklings hast thou ordained strength because of thine enemies, that thou mightest still the enemy and the avenger. 3 When I consider thy heavens, the work of thy fingers, the moon and the stars, which thou hast ordained; 4 What is man, that thou art mindful of him? and the son of man, that thou visitest him? 5 For thou hast made*

him a little lower than the angels, and hast crowned him with glory and honour. 6 Thou madest him to have dominion over the works of thy hands; thou hast put all things under his feet: 7 All sheep and oxen, yea, and the beasts of the field; 8 The fowl of the air, and the fish of the sea, and whatsoever passeth through the paths of the seas. 9 O LORD our Lord, how excellent is thy name in all the earth!"

But in view of Genesis 1 Max Weber, the famous German sociologist of the last century, speaks in this context of "Entzauberung der Welt"—disenchantment of the world, which was set in motion by the Old Testament and was completed by the Protestant ethics and the spirit of capitalism. And of course, according to Gen 1 the world is free for use and misuse by human beings. "Be fertile and increase, fill the earth and subdue it". This can be misunderstood as a very dangerous commandment, a dangerous invitation to plunder the Earth—with devastating consequences as we know and fear in our times. The world itself is not holy in the Old Testament—but the man is holy and sacred, as we can read in Gen 1 and Psalm 8. I think it is fruitful just to pick up this idea, which is connected with the man as image of God, with his own dignity without reservation. And I think it may be a good basis for the dialogue between different religions and cultures too.

Christian Conceptions of Creation, Environmental Ethics, and the Ecological Challenge Today

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ABSTRACT

In the course of its history Christian theology has developed different conceptions of the belief in creation. One conception emphasizes creation as the beginning of salvation history. Another conception focuses on the distinction between nature and revelation and asserts the theocentrism of nature, combined with an Arisotelian conception of the final cause of each natural being. Currently, this concept is being challenged within the debate over anthropocentrism and physiocentrism. The idea of the autonomy of nature and the natural world entrusted to human stewardship also promotes the autonomy of the responsibility for the environment. The relationship to God is a strong motivation for this responsibility, but not a normative concept.

Another approach of Christian theology is the deeper experience of creation, which Christian mystics comprehended as a "book of creation" ("liber creaturarum"), that can augment the Bible ("book of revelation"). If creation is understood as a process of God giving himself, as the first act of divine grace, this process has its deepest roots in the hearts of human beings, who are responsible for the visible manifestation of this grace in their behavior toward the environment and toward other ethical challenges like justice and peace.

Christian environmental ethics is, on the one hand, engaged by strong theological motivations, but, on the other hand, the moral principles and their concrete applications are comprehensible to all human beings and are rationally justifiable. Principles like sufficiency, sustainability, moderate growth, the regeneration of natural resources, respect for life, precaution, contingency, or the impermanence of technical means do not require a specifically Christian or religious foundation, but they can be reinforced by the religious motivations related to the belief in creation.

INTRODUCTION

Contemporary thinkers like Carl Améry hold Christianity responsible for the blatant lack of due regard for creation; Christian theologians like Erich Gräßer lament the lack of due emphasis on creation in the Churches. Have we dis-

missed the observation of nature as a specific location of the revelation of God, as a "liber creaturarum" (book of creation or book of creatures)? Has technical feasibility in the context of globalization completely displaced religious traditions of belief?

How significant environmental problems have become for Christian social ethics is evident, for example, in the Roman Catholic "Compendium of the Social Doctrine of the Church," first published in 2004, in which the environment, together with peace and justice, is considered a central good of humanity, similar to the ecumenical initiative of the 1980s and the position paper "For a Future Founded on Solidarity and Justice" issued by the German Churches in 1997. The social principles—the person and human dignity, justice and solidarity, well-being—have been augmented with the principle of sustainability. The intention is to preserve at least as much capacity for action as future generations will require to deal with the devastating environmental problems that we leave to them: we can slow down global warming and climate change, but we can no longer resolve the problem completely. Among the many pressing environmental concerns it is increasingly becoming clear that we cannot ignore the problems of waste disposal arising from the consequences of our actions. The most important criteria here is: we should not solve problems in such a way that the problems arising from the solutions are greater than the original problems being

solved. This is a formulation of the so-called precautionary principle, which increasingly attempts to consider technology assessment together with the factor of the uncertainty of risks implicit in it. It is crucial that the predictions and prognoses are accurate in order to avoid the "normative power of the fictive," namely, to avoid the proposal and implementation of solutions to problems without consideration of their consequences and without misrepresentation of their effects. The principles of sustainability and precaution also encompass the legal consequences, in order to take the rights of future persons into consideration. Since we have long since used this to justify our actions in other areas, for example, in policy-making decisions in the areas of research, health, and nutrition, it is appropriate to take this into consideration in environmental policy as well. This is clearly acceptable from a Christian perspective, since God creates all human beings as persons. Sustainability, the precautionary principle, and the principle of the person all work together in an environmental ethics. Three major problems of a concrete social ethics are involved here: the problem of globalization, the problem of weighing alternatives, and the problem of motivation. Measures to protect the environment require global responsibility and control, but, ideally, each individual human being should begin with himself or herself. Moreover, these measures must be weighed against other goods and rights meriting protection, although, at the same time, the priority for the good

called environment is constantly increasing dramatically. Finally, to motivate the world populace, we need a system of promotion and necessitation, so that heightened awareness of the problems will lead the individual citizens to continually expand the areas of their environmental advocacy.

1. THE AGE OF TECHNICAL DEVELOPMENT, TECHNOLOGY & THEOLOGY

Technical development is central to the self-understanding of the Western human being. This special technical development has its roots not only in the sources of Greek intellectual development—as a term designating action, "techne" appears, for example, in the Aristotelian system—and not only in the radical changes leading from the Middle Ages into the modern age, but also in the development of Christianity. The conception of the human being technically acting on, that is, literally affecting the world, is informed by the Christian conception of creation as well as by the problems related to the shaping of the world given the challenges of the kingdom of God. There are other worlds than the technical world of life, as it emerged in the so-called Western world, and we can plausibly ask whether problems did not already exist at the beginning of this development.

Within this affiliation of the human being with technical

competence, a basic human condition which developed during the last centuries, it is crucial to distinguish what specifically developed in the consciousness of the modern human being. Technical development is only one of many possibilities for human action and even becomes the basis for a mentality. The term "technology" expresses this state of awareness precisely. It is the technical Logos, which dominates the faculty of reason even in the deeper levels of consciousness: feasibility, producibility, usability, reproducibility etc. Here it is also important to differentiate between the broader framework of the technical activity of the human being and the technological awareness of producibility, of feasibility, which first evolved in the last two hundred years. This distinction seems relevant in order to avoid a fundamental negativity, a fundamental rejection of the technical world of life, when faced with the borderline experiences with current technological developments. In our human world of life there are only technical alternatives to technical developments.

Christian ethics can be comprehended as an ethics of belief, that is, as ethical normativization on the basis of certain religious beliefs. To give two examples: God is the ruler over life and death, or, the human being is the image of God. If we want to translate these convictions into maxims, that is, practical rules for action, we choose the approach of an ethics of belief. However, it is also conceivable to assume that the ability to think rationally also includes the ability to judge and

to act rationally, and that ethics is above all a matter of the rational self-reflection of the human being, in other words, a consequence of how the human being understands himself or herself, initially independent of his or her religious affiliation. There are unquestionably modifications in human understanding ensuing from the various forms of religious belief, but in modernity there is a strong tradition of appealing to human dignity, to human rights, and to a specific understanding of the human being, and of concurring on this without recourse to religious convictions. Of course, this relationship initially signifies a common formulation of the problem rather than a common answer to the problem.

Is it possible to directly infer moral convictions from religious convictions? Even if this is not necessarily an assumption in Christian theology, it does not mean that religious belief would not have any moral consequences. These "norms" are not first justified by the fact that they are part of a revelation or arise from religious beliefs; they can only be justified for all human beings if they are rational. Rational justification means that the "norms" must stand up to critical examination by rational criteria; for example, the argumentation should be free of contradiction, and the normative judgement should be generalizable. These are demands formulated in Immanuel Kant's ethics of autonomy. However, the question repeatedly arises whether there are not also secular convictions that block rational insight. These can be eliminated by

reason liberated through belief. Religious belief opens itself to reason, but reason can develop insight through belief, even beyond the potential that contemporary trends offer it.

2. THE TECHNOLOGICAL MENTALITY & RESPONSIBILITY FOR THE CONSEQUENCES

Various positions accompany the technological mentality. One is the "breakthrough" thesis propagated by the futurologist Herman Kahn. This thesis attempts to prove that the human being, on the basis of his or her ability to produce technical developments, will continually be able to break through the boundaries established by his or her technical advances, with even newer technical advances. Given the widespread ecological degradation and the dangers of ecological breakdown, we will purportedly develop environmental technologies that enable us to go beyond this endangerment. In 1998, the chairperson of the Senate Agriculture Committee in Washington, D.C., Senator Richard Lugar, formulated this breakthrough thesis for a group of German experts visiting the United States, to which I belonged, as follows: it is indisputable that technical developments will cause problems, but we will solve the problems when they arise. What is glossed over is the potential for negative consequences, for example, the immediate ecological consequences as well as the present short-term and the potential long-term ecological conse-

quences of the catastrophic oil spill in the Gulf of Mexico in 2010.

The second thesis is the thesis of dynamic equilibrium, of steady state. Dynamic equilibrium in nature means: there are processes of mutual adaptation continually taking place. According to this thesis, these processes can even be observed in the adaptability of the human being. For example: when children play computer games, not only their intellects and their forms of behavior adapt themselves to these complex machines (at least to some extent), but the children also develop new capabilities that serve as defense mechanisms against sensory overload. On the basis of his or her adaptability, the human being can develop new powers in dealing with these things.

The technological mentality benefits from the third thesis, the thesis of neutrality. Neutrality, that is, the impartiality or unbiasedness of things, is extended to all technical means, for example, to "weapons-usable materials and dual-use goods and technologies," to every instance of data processing, to every type of educational technology, to new microbiological substances, etc. According to this conception, all technical means are impartial, unbiased, but we are admonished to use them responsibly. We can develop bacteriological and biological weapons, for example—this would be ethically neutral—but it is our responsibility to decide whether we will actually implement these weapons. Some politicians, as well

as some philosophers, maintain that there is essentially no difference between an atomic bomb and a prehistoric hand ax. In their opinion, it depends on if and how we use the weapons. Among politicians the view is widespread that we may do everything in the area of high technology that promises economic or medical progress as long as we are willing to take the interest of society in security into consideration. Technology assessment is a recognized mode of compensation in politics. But can we compensate everything, if, from the very beginning, we implement something that we then use to predict the potential consequences?

The theologian Ivan Illich (1973/1975) holds a totally different position on the technological mentality, signalized by the keywords self-limitation or "conviviality" (in a highly specialized sense), that is, being able to live conjointly with responsibly limited technical tools in a modern society. The ability to promote life would then be the standard for technical development. Self-limitation of the human being means that the individual human being not only attempts to compensate what he or she is already doing anyway, but that he or she reflects on his or her intentions and contemplates what the underlying needs really are. The problem is that the need which articulates itself—and requires a solution—is not there first; what is there first is the further development of knowledge and technical competence together with the tendency toward economic feasibility.Then needs are discovered

or awakened, which can be fulfilled. But is it (morally) acceptable for us to fulfill these needs in this way?

Self-limitation and the promotion of life are very different ways of approaching the present and the future. The attitude toward the technological mentality is a question of awareness. If many people subscribe to the theses of the breakthrough, of dynamic equilibrium, or of neutrality, then the question of alternatives to the technological consciousness must be discussed first. Information about problems in technical development and the related borderline experiences do not and cannot lead to an assessment as long as such assumptions govern the technological mentality.

Fourth, if we consider the mindset of the "homo oeconomicus," we cannot fundamentally object to the fact that the human being strives for ever greater profits, that the human being, among other things, is also a "homo oeconomicus" and as such economically professionalizes this way of life. The mentality of the "homo oeconomicus" motivated Jesus to tell one of his famous parables: one should not bury "talents" (the highest denomination of Roman currency); one should increase, multiply them. Of course, Jesus did not mean the real material gains, the profit, but the mentality of the maximization of profit, which he hoped to extend to spiritual-intellectual goods. The pursuit of profit is not the major problem (although it continues to be a serious problem); the political dominance of an economic model of knowledge and

assessment, which basically reduces the question of morality to an outright utilitarianism, to the maximization of utility, is the real problem. I have read a number of doctoral dissertations in economics, which, contrary to their intentions, actually made clear that it is impossible to incorporate ethical questions into the usual methods of the models of knowledge and assessment of the currently reigning economic system. In the area of health care, economic thinking reduces, for example, the nursing care of patients to exactly calculated units of work. In the area of higher education, economic thinking reduces the measurable dimensions of education to the temporal factor of a student's "workload." Anyone who has professional experience in these areas, physicians and academic faculty members, for example, know that this overlooks human differences. Experiences with human beings cannot be quantified, because the human being cannot be quantified. Whoever only wants to quantify, isolates problems from their contexts in order to calculate them numerically. The modern economy calculates measurable dimensions instead of learning from experience.

Frequently, business ethics is also too flagrantly utilitarian, that is, the consequences are determined according to a prognosis with quantifiable magnitudes. In his book "Das Prinzip Verantwortung: Versuch einer Ethik für die technologische Zivilisation," first published in 1975, Hans Jonas pointed out that we should at least adhere to the precautionary principle,

that is, we should trust the unfavorable prognosis more than the favorable prognosis. Prognoses, too, contain quantifiable data. What is necessary over and above this is the insight that quantification, too, has its limits. However, true qualifications can only be carried out with the knowledge of an ethics that goes beyond utilitarian categories. Religious ethics do this, partly in an alliance with various approaches in philosophical ethics (for example, deontology, Neo-Aristotelianism, discourse ethics).

3. Christian Conceptions of the Belief in Creation & the Ethics of Creation

3.1. The biblical belief in creation – from a contemporary perspective

The idea of the human being as a creature among other (nonhuman) creatures was first developed by Fritz Blanke, a theologian in Zurich. Today, the contrasting idea of sovereignty (cf. Psalms 8.7 f.) is interpreted by exegetes like Odil Hannes Steck or Erich Zenger, with reference to Genesis 1.1 – 2.4, as the human being's role as shepherd. However, the tension between these roles—as a creature among other (nonhuman) creatures and as a sovereign—prevails to the extent that the image of the sovereign as shepherd is frequent in the Hebrew Bible and includes the responsibility for life and death of the

world of nonhuman life. This responsibility is at the same time responsibility to God, the Creator (cf. Isaiah 45.9-12).

What the human being has in common with prehuman creation extends to: the soil (of the earth) (for the elements), from which the human being is formed (Genesis 2.7); the common soul, in Hebrew: "nephesh" (Genesis 1.30; 2.7); the special attribute shared with the animals of the earth (creation on the sixth day, Genesis 1.24 ff.); the Sabbath, the day of rest (Genesis 2.1 ff.) as rest following creation.

Also prevalent throughout the Old Testament is the analogy of compassion: just as God shows compassion toward the human being, the human being is not only responsible for the living thing, but should also show compassion toward it. This can be true for the trees (cf. Deuteronomy 20.19 f. as well as Georg Braulik's article), for the rights of animals (cf. Braulik, p. 23), particularly if the animal kingdom suffers to the advantage of the corrupted human race (the biblical story of Noah, Genesis 8.15-17) or if it is a matter of the common fate of the human being and the animal (Ecclesiastes 3.19-21), and for the signifying image of God in the human being showing compassion (cf. Proverbs 12.10). "The upright has compassion on his animals, but the heart of the wicked is ruthless."

In the New Testament, together with the confirmation of the belief in creation, the unpretentiousness, with which Jesus uses the signification of nature for the human being, is found in the Synoptic Gospels (for example, the references

to the lilies of the field, the birds of the sky). A passage in Romans (Romans 8.19-24) indicates that creation is waiting for liberation; there the human being is the intellectually superior creature of creation (8.24), but is unequally included in the realm of creation anticipating liberation.

From the perspective of biblical theology, the analogy between responsibility and compassion is based on the creation of the human being in the image of God, which occurs in the mediation of God's creative action. The commonality with all of creation, the status of being a creature among other (non-human) creatures, even extends to the very physicality of the human being; how each human being acts toward the environment affects his or her being as a physical human being at the same time. This is why it is relevant when dealing with fruit trees to bear in mind that the human being lives from their fruit (cf. Deuteronomy 20.20).

3.2. Metaphysical creation theology and an ethics of creation

Meister Eckhart (1260-1328): "Der niht dan die creâturen bekante, der endörfte niemer gedenken uf keine predige, wan ein ieglichiu creâture ist vol gotes und ist ein buoch." (DWI I, 156, 7-9): "Whoever could know the creatures in the right way, would not need to hear any sermons at all, because every creature is filled with God and can be read as the book

of God."

Characteristic of the metaphysical theology of the Middle Ages is the consideration of the "liber creaturarum" (book of creation or book of creatures) together with the "liber revelationis" (book of revelation), that is, the entire Bible. Being is then to be comprehended in relation and in the state of dependence: in Meister Eckhart's terminology "ze borge," as something that has been lent. Moreover, the theological expression "finding God in all things" is as "nature research" essentially a semiotic interpretation of God's action as Creator and not an insight into nature directed toward application.

According to this conception, creation did not occur once in a prehistoric age, but is continually occurring, every moment, at this very moment, now. As an action carried out by God, creation is both momentary as well as timeless and permanent. From the perspective of the created, the independence of the creatures is the darkness; their dependence is the light, as Meister Eckhart writes in his parable of light and warmth: if the light recedes, only the warmth of the light remains in the darkness, which points away from itself to something else, namely, to the light (cf. DW V, 36, 24 ff.)

Christians presuppose that creation culminates in God becoming human. This intensifies the meaning of creation. God returns to himself via the human being; in a manner of speaking, he left himself (cf. Philippians 2), without dis-integrating or without relinquishing himself.

Wherever the doctrine of the "creatio continua", that is, the permanent and momentary creation, augmented by the doctrine of the "incarnatio continua," that is, the participation of every human being in God becoming human (cf. Mieth, 1969), was forgotten in favor of a single, unique act of creation "before all time," a latent deism established itself in the Western world, even though it was concealed behind credal formulae attesting the contemporary presence of God. With the quantifiability as well as the measurability of the created world according to the laws of nature since Bacon and Descartes at the latest, a metaphysical creation theology and an ethics of creation became irrelevant. The human being had replaced God, even though it is noted that this role as the vicar of God remains a gift of God.

3.3. A salvation-historical creation theology

The theological tradition asserts that the divine economy of salvation already develops its intention in the creation. However, the theology of salvation history of the last decades was singular in its replacement of nature, comprehended as an order directed toward a goal, by history. Some approaches tend to see creation exclusively as the beginning of history and to interpret it purely anthropologically (the human being as the crown of creation, as the vicar of God.) Despite its many contributions, a salvation-historical theology lacks a metaphysi-

cal dimension, except when it interprets a historical sequence of events as a metaphysical intensification (cf. Teilhard de Chardin's periodization of the development of the world in a Christian sense.)

3.4. Transcendental creation theology

In transcendental creation theology "nature" ultimately becomes an anthropological determinant of the state of the human being in the world. (Here "transcendental" means philosophical thought as speculation about possibilities as distinguished from "transcendent" as a theological concept). It prefigures the transcendental possibilities of human existence, even the possibilities of the human being's continued self-transcendence. Anthropocentrism replaces the idea of the human being as a creature among other (nonhuman) creatures.

A brief digression: The danger inherent in a metaphysical creation theology lies in its pure verticality (that is, in a metaphysical mode of thinking from above to below, from heaven to earth, without a historical dimension). The danger inherent in a salvation-historical creation theology lies in its reduction to a socially-oriented history of humanity. The danger inherent in a transcendental creation theology lies in its anthropocentrism.

Here it is not my intention to criticize these theories found

in Christian theologies; this criticism would not do justice to their respective nuances and differentiations. Frequently, the dangers are exacerbated by a populist reception, which can neither be accessed nor influenced by highly differentiated theological thought.

3.5. The doctrine of creation in process theology or the return to a dynamic metaphysics?

The presuppositions of process theology are (as formulated by W. Norris Clarke, and quoted by Joseph Bracken in Concilium 171, February 1984):

> "God is really related to the world of finite entities";
>
> "he is contingently different, perhaps even mutable, because of what happens in the created order";
>
> "he is, accordingly, enriched in his own being by the response of his (rational) creatures to his loving activity in their midst." (p. 40)

These three presuppositions can be compared to the reflections on the metaphysics of creation mentioned above:

What is crucial to the doctrine of the "creatio continua" (that is, the permanent and momentary creation) is God's closeness to what has been created, which is greater than his

closeness to himself.

In the doctrine of the "incarnatio continua" (that is, the permanent occurrence of God becoming human as a transformation of "nature" in the human being), God "becomes," when the creatures talk of God and talk to God (through the human being). Of course, this does not mean that "God" as such is a product of knowledge. His being belongs to himself, but his name is revealed in the books of creation, of revelation, and of deep religious experience ("mysticism").

The human being, who is transformed in his or her innermost depths by God becoming human, can respond by directing all creatures to God respectively by allowing them to return to the Father's womb.

In the doctrine of creation propagated by process theology, there is, to a certain extent, a return to metaphysical thinking, but without the concretization of hierarchical relations of being in a cosmological metaphysics. Whether this is feasible can only be determined by examining its positions on specific issues facing theology today.

3.6. Issues facing creation theology today

Biologism. In Neo-Scholasticism, prehuman nature determines human actions. Cosmological and physiocentric positions are often closer to these positions than they realize.

Instrumentalism. The human being replaces God in the

"creatio continua"; in dealing with the creation responsibly, he or she has only one point of reference: himself or herself. This is why the human being must constantly distinguish between himself or herself as the person acting or the person being acted on, and why he or she must also constantly distinguish between the human being and the environment. The distinction determines accessibility.

Centrism. What is meant here, is, independent of the debate between physiocentrism and anthropocentrism (Alfons Auer offers convincing arguments), is the figure of thought that always includes a visual image: circle and midpoint. This figure of thought cannot express perspectivism or pluralistic cooperation. It is outdated in comparison with systems theory or structural ontology. An intricate network of relationships with movable points of intersection corresponds more closely to the conception of a complex reality and is less dominant.

Given these issues, a doctrine of creation informed by process theology seems feasible, particularly for expressing the living closeness of God and the idea of the human being as a creature among other (nonhuman) creatures.

4. Consequences for a theological ethics of creation

4.1. To construct meaning or to discover meaning

Science and technology seem to exist under the paradigm of constructing meaning. The fundamental passivity of the theological doctrine of creatures has been displaced. The relationship between the observation of nature and the knowledge of creation has been undermined. Constructed meaning is not a comprehensive sense of purpose in life and cannot do justice to the total loss of meaning in life. This explains the tendency to re-endow nature with religiosity (and the reverse) characterizing new forms of religion today.

4.2. Instrumentality or signification?

This question can be expounded in three ways:

Are species of life to be protected rationally-teleologically, that is, for the sake of maintaining their utility, or are they also to be seen as signifiers of the abundance of the creation, as in the narrative of Noah's ark?

How do we interpret the capacity of (nonhuman) animals to experience and endure fear and pain in animal experimentation and animal agriculture: instrumentally, that is, in reference to necessity and utility, or as signifiers, that is, as a sign of life in and around us, and therefore solidaristically?

Does a pregiven and abandoned purpose of creation still exist in human reproduction or only a conglomeration of partial human needs, according to which reproduction can be carried out variously, on demand?

4.3. Progress or Metamorphosis?

The image of progress is the line (slowed down: the spiral); the image of metamorphosis is the cycle. Two examples of the metamorphosis are:

According to Meister Eckhart (cf. Mieth, 2008): There is nothing new under the sun (Ecclesiastes 1.10), because everything that is new eventually becomes old. Eckhart also reverses this progressively: "If there were nothing new, there would not be anything old!" But newness in the sense of a radical breakthrough exists only in the divine realm, specifically, as the "creatio continua." Nothing that the human being invents is new in an absolute sense.

Johann Wolfgang von Goethe considered nature a cycle that transforms and revitalizes itself: "Natur! Wir sind von ihr umgeben und umschlungen – unvermögend aus ihr herauszutreten, und unvermögend, tiefer in sie hineinzukommen. Ungebeten und ungewarnt nimmt sie uns in den Kreislauf ihres Tanzes auf und treibt sich mit uns fort, bis wir ermüdet sind und ihrem Arm entfallen. Sie schafft ewig neue Gestalten: was da ist, war noch nie, was war, kommt nicht wieder – alles ist neu und doch immer das Alte." (Fragment "Die Natur" 1783) – "Nature! We are surrounded and embraced by her: powerless to separate ourselves from her, and powerless to penetrate beyond her. Without asking, or warning, she snatches us up into her circling dance, and whirls us

until we are tired, and drop from her arms. She is ever shaping new forms: what is, has never yet been; what has been, comes not again. Everything is new, and yet nought but the old." (This historic translation by Thomas Henry Huxley, a British biologist who championed Darwin's theory of evolution, was published in the first issue of the journal "Nature" on November 4, 1869). - In Goethe's fragment we sense the "deus sive natura" (the idea that God or nature are expressions of the same), the pantheism of Baruch Spinoza.

The image of progress—the line—does not provide a basis for an ecological conception of equilibrium in science, technology, and the economy. Eberhard Jüngel, professor emeritus of hermeneutics and systematic theology at the Protestant Theological School of the University of Tübingen, has correctly indicated that progress only exists as a plurality, not as a totality.

The image of metamorphosis—the cycle—does not exclude individual scientific or technological advances, individual steps or stages in progress; it clearly includes them. However, the movement points to an equilibrium, for which the human being is responsible and which he or she does not first establish himself or herself.

5. Experiencing Creation in the Religious Sense More Extensively & More Deeply

5.1. God wants life to thrive

In the words of the biblical book of creation, the book of Genesis, we learn that nature existed before the human being, but was entrusted to the human being. Nature was also named by the human being and shaped by the human being. God's word of creation is a word giving permission: you may, you are allowed to eat "from all the trees of the garden." (Genesis 2.16)

The human being "may"— this is the message of creation—the human being is allowed to be the great planner, the great architect of the earth, which he or she was taken from; the human being may live on the abundance of creation, may look after, care for, preserve, and carefully shape the creation. Within the scope of our human limitations, we are God's stewards in and of this world. Beyond the scope of our human limitation, we are the greatest destroyers, first, of our environment, then, of our world of life, our habitat, and, finally, of ourselves.

Diversity and unity are a mystery of the creation. The Tower of Babel was built to sacrifice diversity for unity (cf. Genesis 11). Not its soaring height, but its planned singularity, its planned sovereignty were problematic. In accordance with his will as Creator to populate the entire earth, God scattered the peoples of Babel—in the linguistic chaos and confusion—throughout the globe. However, the diversity of languages does not preclude unity. Pentecost verifies this: on

this momentous occasion, when the Holy Spirit descends on the disicples, everyone speaks their own language, but understands everyone else all the same. Just as Christians throughout the world understand each other today, when they say the Lord's Prayer, each in their own language.

We must preserve the diversity of the creature, and we must not reduce the many variants of the human. The more diverse the signs are in nature, the more diverse the reflection of its signs in our senses, in our hearts. We perceive them with our senses, we transform them in our hearts. Whatever we transform into controllable and manipulatable laboratory subjects through our rationality, we deprive of its signification by recognizing only a functional value. On an industrial-size farm run with modern technology in the Missouri River Valley in the U.S.A., I saw neither a farmhouse nor a single chicken, and heard neither the chirping of the birds nor the buzzing of the bees; I saw only the same endless green of the wheat fields blowing in the wind, with a fleet of farm machines surrounding a refrigerator for beer and Coke in the middle. Is the only future left to nature a future between laboratory and machinery, between function and commodity?

5.2. Are the "lords" of creation losing themselves?

When human beings are nothing but research subjects, computers are better than they are. In fact, there is a group of sci-

entists, who hope to replace the human being by artificial intelligence. These scientists, who want to transcend this finite and mortal human being, want to be like God.

We are all proceeding blindly on this way, when we view living things, plants, and animals according to their value as benefits and commodities, and no longer according to their intrinsic value as creatures among other creatures. The human being, who destroys nature, destroys his or her own physicality, his or her own physical being. For we are totally creature, totally nature, totally body, vulnerable and destructible like all living things, finite and created, dependent and fallible. Only through the modest recognition of our individual selves as nature and as physical bodies are we capable of experiencing as human beings. If we want to be like God, who does not want to be "like God" at all, who gives us freedom and treats us with compassion, in the end it is we, who are the true devils…

Many religious persons believe that God placed his commandments in creation so that we can recognize them in it. We automatically think of the Ten Commandments. But these particular commandments honor God and demand respect for our fellow human beings. Nonhuman creation is not mentioned there. The ancients conceived a vegetative and a sensitive soul even before a rational soul was ascribed to the human being. The affiliation of the human being with nature is not through a physicochemical compound; it is an affilia-

tion of the soul.The human soul has its preliminary forms in biological life, in the faculty of self-locomotion, which develops into self-determination in the human being. Despite the theory of evolution, which presents these links in a different way, we still tend toward a dualism that sees plants as biological "material" and animals as legally appropriable "things."

This is due to a misconception about self-knowledge, that is, the failure to recognize the status of the human being as a creature. Why is the "tree of the knowledge of good and evil" excluded from the realm of "the permissible" in Paradise? It stands for the provision that the human being is not God, but a creature. The human being can only see "as in a mirror" and cannot solve the mystery of creation (cf. 1 Corinthians 13.12). True knowledge cannot be picked from a tree. This is why the human being must learn to impose and exercise self-restraint. There is a violation of boundaries in creation that can only have negative consequences for the human being. After having attempted to be like God, the human being recognizes that he or she is always poorer and more naked than before.

Only when the human being programmatically elevates himself or herself to the divine, although he or she still remains a mystery to himself or herself, when the human being forgets his or her finitude, mortality, dependence, vulnerability, fallibility, when he or she no longer knows where he or she came from and where he or she is going, then he or she is no longer in the realm of permissibility, but in the realm of

self-destructivity. Not nature is the entity that will ultimately suffer: it does not concern the tundra at all whether the human being survives or not; not God is the magnitude that has been harmed, he continues to reign. However, the human being loses himself or herself, when he or she exceeds the bounds of what is permissible. There are more than enough gruesome examples of this in human history and in our globalized world of life today.

6. Responsibility – Learning from the Environmental Crisis

The learning process provoked by the environmental crisis takes place in a number of ways. If we emphasize the differences instead of the similarities, we can distinguish, for example, approaches focused on negative dialectics (Ivan Illich), approaches focused on being (Ernst Friedrich Schumacher), and approaches focused on systems theory (for example, Hans Christoph Binswanger). Despite these methodological differences, the issue itself obviously remains the same. These approaches all tend toward an institutional (not simply an individual) theory of human scale, of human proportionateness, which, variously formulated—self-limitation (Ivan Illich), "returning home" (Ernst Friedrich Schumacher), equilibrium (Hans Christoph Binswanger)—is interested in a generally comprehensible and ethically relevant catalog of criteria for

the constitution, acceptance, and application of alternative concepts. However, these scholars do not consciously develop this theory as an ethical theory. This is to a great extent replaced by evidence of contrastive experience, by evidence of practically lived convictions (in alternative models), and by evidence of the interest in survival. Praxis thus appears as the consequence of a communicative learning process, which capitalizes on the emergence of (moral) praxis. It is less a matter of what we should do than what we can do, less a matter of the right judgement than the necessary praxis (necessary in the sense of averting necessity!).

Ethical perspectives must be devleoped in a praxis-oriented learning process. What should be done cannot be separated from what can be done. Historical praxis generally precedes ethical reflection. Ethical principles and rules of priority are always evoked by practical experience.

Why is a process of ethical justification necessary above and beyond the learning process motivated by reflection on the environmental crisis? Because justification is the only possibility to make divergent learning processes mutually transparent and, consequently, effective. Although logical justification is always subsequent to praxis--as opposed to preceding praxis--and, corrrespondingly, is only one component of ethical reflection, it is, if not an adequate, a very necessary component. To give an example: the Green movement emerged from extremely different practices based on ex-

tremely different orientations (for example, a highly romanticized view of nature, new forms of religiosity, social criticism). To become a transparent and an efficient movement, it requires a common logical justification, which goes beyond a consensus on specified practical goals. Generally speaking, the search for a common ideology (worldview) instead of a common logical justification evolves into the problem of base and superstructure: then reality can only be comprehended in reductive premises.

In my opinion, a logical justification in an ethical sense must not equalize different worldviews and different methodologies; it must functionalize these presuppositions gained from varied experiences, that is, examine them for function and range. Each theoretical approach can be feasible, but none of them is feasible alone.

Crucial here is the ethical theory of the relationship of the human being to himself or herself and to the world, a theory, which the word "environment" only vaguely indicates. The keywords of this theory are evoked by the central concepts proposed by Ivan Illich (self-limitation) and Ernst Friedrich Schumacher ("back to the human scale") as well as the concept of justice proposed by systems theory (adequate complexity). Ultimately, it is a matter of a new relationship of the human being to himself or herself and to the world, a new "global ethic."

Given qualitative concepts, it is a matter of the careful ex-

amination of the contents of the maxims for action, as well as the analytic supplementation of these concepts (the justification of principles and rules of priority), and, finally, the summary of the practical convergence in rules of priority and positions.

6.1. Ivan Illich: Self-limitation (1973/1975).

Illich's concept is anthropologically oriented. The central concept of autonomy means satisfying, creative self-realization. This principle arises from the contrastive experience with the "homo oeconomicus" (keywords: powerlessness, manipulation, modern poverty), but also reflects the classical modern tradition of ethics since Kant. Here it is less a question of the autonomy of morality than the morality of autonomy (cf. Johannes Schwartländer, 1980). The morality of autonomy is not the self-determination, but the self-limitation of the human being. These maxims are intended to help lead the human being out of the heteronymy of his or her myths of progress. Here, too, historical contrastive experience and classical, in this case, already premodern tradition, converge: the doctrine of the virtue of wise moderation.

In contrast to the classical tradition, self-limitation does not simply refer to the individual's physicality (and sexuality), but to the means, the instruments, and the institutions, in which the human being assimilates the world. These in-

struments and institutions should be structured to allow autonomy in the sense of freedom, equality, and fraternity (cf. the maxims of conviviality). This demand is not only formal; it becomes historical as well as practical if it is linked to the transition from exhange value to use value (an element of Marxist thought). The concept of praxis is to create use values, but not through class struggle and class dictatorship (the analysis of modern poverty as the powerlessness of all does not support this), but through practical models of gentle technology. Strategically, this also calls for the redistribution of power and property.

6.2. Ernst Friedrich Schumacher: "back to the human scale"

As a converted economist, Schumacher does not utilize the language of modern philosophy, but that of a religiously motivated metaphysics and ethics, which strongly echoes the tradition of a medieval ethics of being. This leads to an affinity with moral theology: in his well-known book, "Small is beautiful: Economics as if People Mattered" (1973/1977), Schumacher includes the Sermon on the Mount as a list of guidelines for the proper implementation of technology (p. 147 f.) and also proposes the justification of a counterfactual ethics in a higher reality ("centre," p. 87 f.) of human existence. This is why the figure of the person inventing or affirming a breakthrough is juxtaposed against the figure of the person

returning home (p. 146 f.). (Incidentally, both figures have their roots in mysticism). The return to religious origins (Buddhism, the Sermon on the Mount), to metaphysics, and to a correspondingly motivated ethics is less directed toward rules of obligation than toward a new capability, a different way of being. What is sought is the "Middle Way" of liberation from materialistic dependency (p. 54), the richer life of a broad, holistic education (p. 83; p. 86 ff.), the human scale or proportionateness of a technology (p. 138 ff.; cf. Schumacher 1994,), which, as for Ivan Illich, lies in self-limitation. Technology must be steered away from its own dynamics, which destroys all forms of equilibrium, and must be directed toward human instrumentality (cf. Illich). This "technology with a human face" (pp. 138, 145) requires guidelines (p. 92), a new moral pedagogy. Like Erich Fromm, Ernst Friedrich Schumacher, too, asserts that the human being needs an object of veneration and an orientational framework. The human being is out of touch with the center (p. 87) and must therefore rediscover and reconnect with the center. "The centre, obviously, is the place where he has to create for himself an orderly system of ideas about himself and the world which can regulate the direction of his various strivings" (p. 88).

What does this model of a return to a human future contribute to an ethical theory of scale, an ethical theory of proportionateness? First, concealed sources of human experience are revealed. Schumacher's approach can be related to

the moral-theological approach of my academic teacher in Tübingen, Alfons Auer, in conjunction with the "rationality of reality." For Auer, the demand for a reality directed toward meliorization develops in three steps: the analysis of the facts, the awareness of the meanings for human beings, and the determination of anthropological urgencies as ethical priorities. All theories that utilize humanity as an emphatically ethical concept are ultimately bound to an ethical theory of scale, of proportionateness, as the theory of a metaphysical center of human existence. Karl Rahner characterized the corresponding virtue as the unity of life and thought (cf. Rahner/Welte, 1979). What is problematic about this approach is that statements about meaning first become statements about obligation through empirical analysis, and this is frequently controversial. For this reason, this approach requires further analysis (see below).

6.3. Hans Christoph Binswanger: The adequate complexity of growth

The strategies proposed in many environmental analyses are not specifically justified ethically. That the system human being – society (in the Western sense) should survive and even improve is automatically assumed. Conceptions of a better humanity are based on a social-liberal consensus, which is not discussed explicitly. The divergent needs of the institu-

tion of economy and the institution of society should lead to an equilibrium (the magic triangle: productivity, balance of payments, employment). More transparency, more information and education, more creative freedom and, at the same time, more solidarity, a more pronounced sense of justice, more conflict resolution, more democracy: these are model liberal and social values, which enter into the strategic considerations, but are viewed as predetermined goals to be accepted or rejected.

Every system must attain another, higher order to produce a solution for its environmental problems. The solution is as follows: the foundations of the present system (for example, the distribution of labor and stability) remain, but are to be balanced with new viewpoints (environmental protection, energy conservation). Consequently, the system becomes more complex, on the one hand, and less complex, on the other hand, because every increase in complexity must be compensated, that is, balanced with a decrease in complexity elsewhere. Ths system must attempt to establish a new equilibrium in order to survive in its environment. This corresponds to the system's will to assert itself: it must adapt to changed conditions in its own interest.

The concept of the adequate complexity of the system (formulated by the sociologist Niklas Luhmann) fits this perfectly. However, this system can only attain a complexity appropriate to the environment when it simultaneously produces the

meaning that can direct the new adequacy in complexity toward action. Scale (proportionateness), self-limitation, and equilibrium construct this meaning. Such constructions of meaning are necessary, because action can only be motivated by the decrease in complexity, and because every system has been "selected" from the environment through the decrease in complexity. The constructions of meaning and their corresponding moral maxims are useful system entities. (For Luhmann, this is why the human being needs morality and religion).

An ethical theory of scale, of proportionateness, above all, in the sense of dynamic equilibrium, is therefore eo ispo part of the necessary change in the system. The change in the system produces the ideas directing action itself, not the reverse. The norm is everything that promotes the adequate complexity of the system. This approach can be discussed from the perspective of ethical foundations (particularly its determinism). Extremely controversial is whether it is actually sufficient for an interactional theory of justice. (The problem of just distribution is not central to all environmental analyses). In conjunction with the question system-environment, it seems to be extraordinarily valuable.

To realize such adequacies in the complexity of the system and in the system-environment relationship, ethical considerations are clearly necessary. Only when what is beneficial to the system as well as what is beneficial to the human being is

accepted, is it also morally binding (as Peter Ulrich, the professor of economic ethics in St. Gallen asserts). The economic ethics of Amartya Sen also follows this line of argument.

6.4. An environmental ethics informed by the thought of Amartya Sen (cf. Fabian Scholtes)

Fabian Scholtes (2007) uses Amartya Sen's economic ethics to propose an economically responsible environmental policy. In the second chapter of his book, Scholtes discussses the question of power and control over the environment, demonstrating how the "treatment of nature" as an essentially non-artificial resource has transregional, transnational, transcultural, and intertemporal effects bound by dominant preferences. One decisive point is that the "exported" consequences as retrospective consequences create a situation, in which the dependent persons involved are unable to turn down the ensuing (at least passive) obligations and liabilities. With respect to common goods, a situation of inequality requiring justification then arises, in which those responsible must become aware of the binding nature of their actions.

The initial demands placed on economic ethics are:

> the duty, communicable to the persons concerned, to justify "nature-transforming economic practices" with preferences that are imposed on others;

its acceptability to the persons concerned through the inclusion of their self-referentiality and their preferences; this would require a discursive framework (this point has not been adequately discussed);

the treatment of the contingency of reasons given in justification and acceptance.

Scholtes' criticism of economics focuses on shortcomings in the perception of nature (reductive and incomplete) and on the instrumental forms of environmental valuation related to the economic concept of use, the abstract, liberal concept of exchange as well as the utilitarian concept of well-being. The central concepts of freedom, well-being, exchange are incorporated into a specific form of utilitarian ethics, which directs economics uncritically. However, it is always a question of certain preferences related to freedom, well-being, and exchange. There "it cannot simply be assumed that remote societies, which we dominate environmentally through our economies, accept our interference in the natural foundations of their respective economic practices on the basis of our reasons, as they are planned and mandated by environmental economy" (p. 82 ff.).

The central thesis is: "If ecological economics remains in a framework oriented on well-being by maintaining its reference, or by failing to offer another plausible reference in

its demands for a constant natural capital stock respectively for the nonsubstitution of certain natural goods, it does not constitute an alternative to a neoclassical environmental economics for the intersocietally acceptable justification of environmental dominance" (p. 94).

Sen's conception of a "normative economic ethics" (p. 102) is supplemented with an occasional insight from Martha Nussbaum (cf. pp. 100, 125). It is basically a critical alternative to the logical, anthropological, and ethical presuppositions for a welfare state. The major concept informing this alternative is a concept of freedom as an "advantageous concept of economic practices" (p. 103), which does not exclusively orient these on established, subjective preferences. Freedom, not assumed abstractly-transcendentally (see the thorough survey of concepts of freedom and the controversies surrounding freedom, pp. 104-112), but comprehended as a real magnitude, is a fundamental perspective of human life: it is an "entitlement;" it requires concrete "capabilities" for its perception and favorable conditions ("functionings") for its development. The demand for equality as an integral part of a theory of justice also refers to this. On the other hand, Sen's theory of freedom is anti-collectivistic and pluralistic, with regard to the choice of the good (cf. p. 124 ff.).

For Sen it is a matter of real, concrete freedom. He comprehends this as going beyond liberal, negative freedom, namely, as a positive demand to be interpreted and fulfilled procedur-

ally and consequentially. This requires the right capabilities, the right processes, and the right opportunities. Sen's concept of freedom encompasses "social commitment," which is examined under the broader concept of responsibility (cf. p. 150 ff.). This in turn encompasses an inner responsibility for the freedom of all persons and for the still "imperfect" obligations (imperfect with regard to the relevant area). Moreover, it also encompasses a conception of justice that Scholtes, on the one hand, attempts to establish as a "fundamental equality" (p. 158 ff.), which, following Stefan Gosepath, is always to be determined "relationally." On the other hand, Sen's conception affirms the complexity of interferences in the areas, including the "intercultural interference" (p. 162 ff.). Culture is a "complex of norms and values" as well as a "construct informing perception and meaning" (p. 162). Here the orientation on the concept of freedom allows transformations but ties them to cultural acceptance.

The meliorization of real freedom and the processualization of liberation as a democratic action are also to be developed as environmental criteria. This democratic process strengthens the preferences not expressible as "benefit" and reveals them for the first time. It facilitates valuations of nature, which allow the freedom-related content of nature to be comprehended and which correspond to the intelligent assessments of impact. Since deliberation can only be completed through advocacy, the goal is acceptance by the per-

sons concerned.

6.5. Concluding Analysis

The ecological imperative formulated by Hartmut Bossel can be seen as a general analytic rule of priority: "Act so that the same right to the preservation and development of all adequately singular present and future systems and agents continues to be guaranteed" (Bossel, 1978). This rule attempts to formally articulate the responsibility for the previous world, the present world (including its inhabitants), the environment, and the future world (including future generations). Somewhat unclear, however, is what the expression "adequately singular" actually means with reference to system and agent. This imperative also does not emphasize human values strongly enough, and ignores the fact that the concluded process of the hominization (not of the humanization!) of the world is irreversible.

The general rule of priority or golden rule for the relationship of the human being to the world or for the process of assimilation of environment and (human) physicality could be formulated as follows: "Act so that human institutions serve the development and preservation of the physicality of the individual human being in such a way that, on the one hand, the intrinsic value of the prehuman world is preserved, reconstituted, and promoted to as great a degree as possible, and,

on the other hand, the specifically human form of life is made possible in creative autonomy."

The intrinsic value of the prehuman world and human autonomy encounter each other in the physicality, which the human being has and is at the same time. This is why the general rule of priority attempts to establish the transparency between physical self-manipulation and environmental manipulation related to the human being in such a way that the intrinsic value of the prehuman and the autonomy of the human continue to be taken into consideration. This can also be communicated through the theological preunderstanding outlined above.

The content of the general rule of priority can be concretized if it is applied to individual model values. For example, to the religious value of human contingency and finitude, which is governed precisely by human physicality. Then the imperative would read: "Act so that the contingency, provisionality, and vulnerability of the human being as human realities and human values are taken into consideration in all measures and by all institutions and are not ignored." And over and above this: "Act so that the conditions vital to the existence of nonhuman nature are preserved and developed as the location to experience the contingent physicality of the human being, to the extent that the autonomy of the human being cannot be cancelled as a result."

If we apply the general rule of priority to the problem of

the inevitable but ambivalent instrumentality in dealings with things and prehuman life that characterizes the relationship of the human being to the world, then the imperative would read as follows: "Act so that the instruments of a satisfying and creative self-realization of the human being (that is, technical and social institutions) do not endanger their own physical and biological resources, but attempt to implement them for the human being in accordance with their inherent specifications."

Finally, if we apply the rule of priority to the model value of the equilibrium between relationships within the system and environmental relationships (this is the idea of "adequate complexity" formulated by systems theory), then the imperative would read: "Act so that the equilibrium between human and prehuman systems considers not only the adaptation of the complexity, but also the irreplaceability of certain natural systems (from the standpoint of the law of nature on non-regenerability) and the status of every human individual as an end in himself or herself (without sacrificing freedom and human dignity).

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Appendix

Joint Statement on the Uppsala Interfaith Climate Manifesto 2008

We, the undersigned participants of the 'Islam, Christianity and Environment' Symposium, strongly endorse the UPPSALA INTERFAITH CLIMATE MANIFESTO 2008, which is a call to believers of all faiths to do their utmost in supporting initiatives which protect the environment. We believe that living a religious life means living in an environmentally sustainable manner. It also entails respect for the environment as a creation of the Divine.

Conference Special Guests:

- HRH Princess Areej Ghazi
- Orthodox Patriarch of Jerusalem Theophilos III
- HE Mr. Hazem Malhas, Minister of Environment
- Reverend Dr. Trond Bakkevig
- Father Nabil Haddad

The Eugen Biser Foundation Delegation:

- Prof. Dr. Richard Heinzmann
- Prof. Dr. Dietmar Mieth
- Prof. Dr. Martin Arneth
- Dr. Andreas Renz

The Royal Aal al-Bayt Institute for Islamic Thought Delegation:

- HRH Prince Ghazi bin Muhammad bin Talal
- HE Shaykh Prof. Dr. Mustafa Cerić
- Prof. Dr. Ingrid Mattson
- Ambassador Dr. Murad Hofmann
- Dr. Caner Dagli
- Dr. Joseph Lumbard
- Prof. Minwer Al Mheid

THE UPPSALA INTERFAITH CLIMATE MANIFESTO 2008

For the Earth, salvation is about more than new technology and green economy. Salvation is about the inner life of human beings. Life without hope is detrimental to human existence. The peoples of this beautiful precious planet need to dialogue about what it means to live together, with global empathy in a global village. Religions can contribute to this in a decisive way.

As people from world religions, we urge governments and international organisations to prepare and agree upon a comprehensive climate strategy. This strategy must be ambitious enough to keep climate change below 2° Celsius, and to distribute the burden in an equitable way in accordance with the principles of common but differentiated responsibility and respective capabilities. Greenhouse Development Rights offers one concrete model of such burden sharing. We urge all actors concerned to find politically acceptable tools to realize this. We ask the global political leadership for:

- **Rapid and large emission cuts in the rich world**. Developed countries, especially those in Europe and North America, must lead the way. In the developed countries emissions should be reduced by at least 40 per cent by 2020 and 90 per cent by 2050 against 1990 levels.
- **Binding cuts for the rich world on top of their domestic obligations**. According to the principles of responsibility and capability countries should pay for international cuts in addition to their own domestic initiatives. These payments should be obligatory, rather than voluntary.
- **Measurable, verifiable and reportable mitigation actions by developing countries**, especially countries with fast growing economies.
- **Massive transfers and sharing of important technology**. All countries must encourage and facilitate the sharing of

technology that is intrinsically important to reducing emissions. Developing countries must have viable and technologically responsible opportunities to provide for their populations.

- **Economic incentives for developing countries** to foster cleaner development on a national scale.
- **Adaptation to climate change.** According to the same principles of responsibility and capability, countries must ensure that poor and vulnerable communities are empowered and supported. Adaptation to climate change must not fail for want of money or other resources.

Humility, responsibility – and hope!

We urge political and religious leaders to bear responsibility for the future of our planet and the living conditions and habitat preservation of new generations, assured in this of support and cooperation from the faith traditions of the world. The climate crisis is a fundamental spiritual question for the survival of humanity on planet Earth. At the same time, we know that the world has never before been more capable of creating sustainable development. Humanity possesses the knowledge and technology. Popular commitment to doing what can and must be done is growing.

We are challenged to review the values, philosophies, be-

liefs and moral concepts which have shaped and driven our behaviours and informed our dysfunctional relationship with our natural environment.

We commit ourselves to taking and sharing responsibility for providing moral leadership within our various faith traditions and for others who so desire. We call upon all who have influence over the shaping of both intellect and spirit, to commit themselves to a profound reorientation of humanity's self-understanding and of the world, whereby we acknowledge our estrangement and henceforth strive to live in harmony with Nature and one another.

We offer the gift of our various faiths as a source of empowerment for developing sustainable) lifestyles and patterns of consumption. We undertake this mission in a spirit of humility, responsibility, faith and urgency.

Now is the time to mobilise people and nations.

As people of different faiths, we make these commitments:

- To inform and inspire people in our own religious and cultural contexts to take responsibility for and to implement effective measures
- To challenge political and business leaders where we live and work to develop comprehensive strategies and action
- To focus on the struggle against global warming and draw upon our innermost religious convictions about the mean-

ing of life. This commitment is a deeply spiritual question concerning justice, peace and hopes for a future in love and solidarity with all human beings and the whole of creation.

As religious leaders and teachers, we want to counteract a culture of fear with a culture of hope. We want to face the climate challenge with defiant optimism to highlight the core principles of all major sacred traditions of the world: justice, solidarity and compassion. We want to encourage the best science and political leadership. We commit our communities to fostering a spirit of joy and hope in relation to the greatest gift given to us all – the gift of life![1]

1 [The Interfaith Summit on Climate Change was hosted by the Church of Sweden in Uppsala, Sweden, in 2008. The Swedish Archbishop Anders Wejryd asked interfaith leaders (including Christian, Buddhist, Daoist, Sikh, Muslim, Jewish and Native American leaders) to sign the Uppsala Manifesto demanding quick and extensive reduction of carbon dioxide emissions in the wealthy parts of the world.]

[http://www.svenskakyrkan.se/default.aspx?di=143415]

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